AppleWorks Forum

The Monthly Publication of **NAUG:** ***The National AppleWorks Users Group***

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Support for AppleWorks & ///EZ Pieces Users

FROM THE EDITOR

THE LARGEST APPLEWORKS FORUM YET

by Cathleen Merritt

This month's ***AppleWorks Forum*** is our largest yet... twenty pages instead of the usual sixteen. Our thanks to Applied Engineering, Petit Design and K-12 MicroMedia for advertising in the ***AppleWorks Forum.*** Their advertisements paid for the extra pages. **NAUG**'s policy is to use the revenue generated by advertising to expand the newsletter. So if you have any contact with our advertisers, let them know you appreciate their support of the group.

NEW EXCITEMENT IN THE APPLEWORKS COMMUNITY

This month's issue reflects a new level of activity among high level AppleWorks users. Some users are beginning to get important insights as a result of "hacking" at the code of the AppleWorks program. While early "hackers" (e.g, Randy Brandt and Alan Bird) gave us such useful programs as Super MacroWorks and AutoWorks, there is now an increase in work by part-timers who contribute their work primarily to the public domain.

Dr. Garth Shultz, of Kalamazoo, Michigan is one such individual. Dr. Shultz has developed a way to add more than one custom printer to the AppleWorks printer menu. His article describing this process appears in this issue of the ***AppleWorks Forum.***

Novices might ask why an AppleWorks user would want to add more than one custom printer to the menu. However, as you explore AppleWorks, you realize you can use custom printer definitions to take advantage of features offered by your printer but not available through AppleWorks (e.g., printing italics or printing entire documents in boldface). The possibility of adding up to three custom printers to a single AppleWorks program disk is exciting.

More important is the possibility that we are at the beginning of a new age in the development of AppleWorks accessories...the age where a community of users develops program modifications to enhance and expand its favorite productivity tool.

The ***National AppleWorks Users Group*** (**NAUG**) is an association that supports AppleWorks users. The group provides assistance to members and information about the AppleWorks program and applications of the program. Our primary means of communication with members is through the monthly newsletter entitled the ***AppleWorks Forum***.

LETTERS

HOW TO TRANSFER VISICALC FILES INTO APPLEWORKS

Dear Cathy:

Can you help me convert Advanced VisiCalc files to AppleWorks format? AppleWorks appears unable to read my VisiCalc data disks.

George Shaffer
Birmingham, MI

[Ed: While the AppleWorks spreadsheet module has the ability to read VisiCalc files, both VisiCalc and Advanced VisiCalc are DOS 3.3 programs. You will have to convert the data files into ProDOS to be read into AppleWorks. You'll need the ProDOS Users Disk (an Apple Computer product) to make the conversion. Here's a description of the procedure, assuming you know how to use the conversion utility on the ProDOS Users Disk:

1. Use either AppleWorks or the ProDOS User's disk to format a blank data disk (call it /DATA/).

2. Use the "Convert" function on the ProDOS User's disk to convert the files on your VisiCalc data disk into ProDOS format.

For the following steps, you must know the name assigned to your VisiCalc file. If you remember the name of your VisiCalc spreadsheet, add .VC to the end of the spreadsheet name and you will have the file name. For example, if you called your VisiCalc spreadsheet "BUDGET", the file name will be BUDGET.VC.

If you don't remember the name of your spreadsheet, you can use AppleWorks to give you a list of all the files on the disk. Boot up AppleWorks and select choice #5 (Other Activities) from the Main Menu. Select "List all files on the current disk drive" and AppleWorks will give you a list of all

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file names on the ProDOS data disk. Write down those names (or power up your printer and issue an Apple-H command to get a hard copy of your screen).

3. Return to the Main Menu and declare you want to add a new spreadsheet file to the desktop. When given the Spreadsheet Menu, indicate you want to add a VisiCalc file to the desktop. AppleWorks asks for the pathname of that file. Enter a slash, the name of the disk, another slash and the name of the file. For example, if the file name is BUDGET.VC and it is stored on the disk named DATA, enter /DATA/BUDGET.VC.

4. If AppleWorks finds the file, it will ask you for an AppleWorks file name for your spreadsheet. Give it any eight character name starting with a letter. Your file name cannot include spaces or punctuation marks, except a period. Press RETURN.

The VisiCalc spreadsheet will appear on your AppleWorks screen, but it won't be correctly formatted. Use the AppleWorks formatting commands to change the column widths and the other formatting features you want to use. You will have to re-enter some of the headings and other labels to get the format you desire. Then issue an Apple-S command to save the spreadsheet in AppleWorks format.]

HOW TO REDUCE KEYSTROKES AND DISK SWAPPING

Dear Cathleen,

Can you offer some suggestions to help a quadrapalegic find it easier to use AppleWorks? Can you help me put together a system that will reduce keystrokes, disk changes and the like? I'm on a limited budget.

Name withheld by request.

[Ed: While you've undoubtedly considered many alternatives when configuring your system, here are some more suggestions:

1. If you can afford $500, get a Sider hard disk drive. The Sider will completely eliminate the need for disk swapping. Alternatively, you can purchase a 3-1/2 inch disk drive (and required interface card) for $295 from a vendor like Central Point Software. The 3-1/2 inch disk holds approximately 800K of data and programs, so you can put AppleWorks and your data on the same disk. One of our members reports that using this system, he can work all day without changing disks. In addition, some users might find the button on the 3-1/2 inch disk drive easier to operate than the doors on the 5-1/4 inch drive. Anchor your disk drive and computer to your desk with "carpet tape"...a double sided, foam tape.

2. Get KeyPlayer, AutoWorks, or Super MacroWorks and build extensive keyboard macros to reduce the number of keystrokes you must type. These programs let you substitute a single keystroke for a whole series of words and/or commands.

3. You probably know this trick, but in case you don't...use "codes" when typing a document, then use the "Replace" command (Apple-R) to replace those codes with words or phrases. For example, I routinely use the code "@" instead of typing the word AppleWorks. When I'm done writing, I replace the "@" with the word Appleworks in the entire document. I use "#" for "Apple //" and a series of other codes.]

[Ed: I sent the **NAUG** *reply to the writer. Here is his response...this time with a fancy letterhead produced with Print Shop, page numbers as centered footers at the bottom of the page, right justification and indented paragraphs.]*

Thanks for your letter with suggestions to reduce key entry and disk swapping. I appreciate your recommendation of AutoWorks. It occurred to me that it might be a worthwhile piece of software, but I was hesitant to purchase it without seeing a review of the program.

It is my experience that using a memory expansion card as a RAM disk offers a great advantage for anyone, and especially for persons with limited physical abilities. I would recommend at least 512K. You have ample speed with all your programs loaded into memory leaving, in my case, two 5-1/4" drives available for data disks. This allows a lot of flexibility, and lets you load in all the programs you use, reducing the need for disk swapping.

Cathleen, considering I'm so new to computers and AppleWorks, I've been wondering if others are having a problem getting used to seeing the AppleWorks document formatted on the screen. When I use the default settings, everything lines up on the left side of the screen, even if I change my margin settings. I thought I was destined to look at a lopsided display forever until I did some experimenting that let me get my document centered correctly on the screen. Members who prefer greater similarity between the AppleWorks screen and their printout might like to try this technique. Here's what I did:

1. On a blank word processor screen, issue the Apple-O command and change the left and right margin settings to zero.

2. Press the ESCape key to return to the document.

3. Enter a blank line by hitting the RETURN key.

4. Issue another Apple-O command and set the margins back to one inch.

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5. Save the file for use as a formatting template.

Now when I want to type a document, I recall this format from the disk, change its name (using the Apple-N command) and type. My document appears centered on the screen.

Name still withheld by request.

ADVANTAGES OF THE PINPOINT SPELL CHECKER

Dear Cathleen:

This is a follow up to the fine article by Bert Greene comparing different spelling checkers (see the December issue). One important thing missing in his article is that Pinpoint's pop-up Spell Checker has the ability to check the spelling within the data base and spreadsheet functions of AppleWorks. The only way to do that with other spell checker programs, like Sensible Speller, is to covert the data base or spreadsheet to a word processing file, check the spelling, make a note of the misspelled words, and return to the original data base or spreadsheet file to make the corrections. Alternatively, the data base or spreadsheet could be reconstructed with the word processing file. However, all special layout and print formats would be lost.

If you have large data bases or spreadsheets, this feature of the Pinpoint Spell Checker could make it a worthwhile investment.

Richard Musselman
Sewell, NJ

VERSION 2.0 ISN'T WORTH IT

Dear Cathleen,

I disagree with your editorial comment that the $50 upgrade for AppleWorks 2.0 is inexpensive. I think it is too high for no real increased functionality. My two UniDisk 3.5's work just fine with version 1.3. I am sure that upgrading MacroWorks, Pinpoint and so on will also cost me money. And, as you mentioned, there is some pioneering to be done. Who needs it?

Please keep the quality of the ***Forum*** as high as possible and do not become just a public relations forum for Apple.

Christopher C. Crowl
Ridgefield, CT

CORRECTIONS TO THE MARCH ISSUE

Here are corrections to errors in the March issue of the ***AppleWorks Forum:***

"Creating Auto-Boot Disks for RamWorks Cards", by Hal Heidtman contained an error in the right hand column on page 5. Lines 45 and 46 appear twice in the article. If you want to auto-load AppleWorks and Pinpoint (including the dictionary for the Spell Checker) onto your RAM disk, the four lines should read:

```
45 MV$(0)="/APPLEWORKS":MU$(0)="/RAM"
46 MV$(1)="/APPLEWORKS":MU$(1)="/RAM"
47 MV$(2)="/ACCESSORY":MU$(2)="/RAM"
48 MV$(3)="/PP.DICT":MU$(3)="/RAM"
```

Dale Therio from ***Applied Engineering*** *called to correct the following errors in our description of their products:*

In the "Letters" section we indicated that the Checkmate Technology memory cards make the most efficient use of memory because they let you define the maximum number of records to be stored in a data base file. We inferred that Applied Engineering software did not offer that possibility. That is incorrect. If you press the ESCAPE key when AppleWorks displays the "Getting Started" screen, the Desktop Expansion software offers a number of options that increase the flexibility available to RamWorks, RamFactor and GSRam card users.

One option on the menu lets you set the maximum number of records you can store in a single data base file and the maximum number of lines for your longest word processor document. You can select anywhere from 6,000 through 23,000 records or lines. The higher you set this number, the larger the individual file you can create in AppleWorks, at some cost in reduced desktop memory available. You can save up to 35K of desktop space by limiting the maximum size of any single file to 6,000 records or lines.

Other options on this menu let you enable or disable the print buffer and control the time display if you have a clock in your Apple.

Another error occurred in the article "Latest Versions: Applied Engineering Software Update" on page 6 of the March issue. That article states that RamFactor cards do not provide print buffering when used with version 2.0 of AppleWorks. The article implies that print buffering is available with earlier versions of the program. Unfortunately, that is not correct. The design of the RamFactor card does not allow for print buffering with any version of AppleWorks.

PRINTER PRIMER

EXTRA CUSTOM PRINTERS FOR APPLEWORKS

by Garth Shultz, M. D.

[Ed: This article first appeared in ***Page //****, the newsletter of the Kalamazoo Apple Computer Users' Society. It is written for advanced Apple users who are familiar with hexadecimal codes, addresses, and sector editing.*

Since submitting this article, Dr. Shultz wrote an elegant public domain program that lets you add up to three custom printers onto a single AppleWorks disk. **NAUG** *is testing that program; we will publish a review of the program and step-by-step directions in the next issue of the* ***AppleWorks Forum.*** *To obtain a disk containing the program, write* **NAUG** *and ask for the "Dr. Shultz Disk". Send $4 to cover the cost of copying, packaging and mailing.]*

As you know, AppleWorks is configured for 11 or 12 predefined printers and has provisions for defining your own custom printer if you don't happen to have one that is on the menu. Although my Genimi 10-X can use the Epson/ Graftrax+ configuration for most functions, I require a custom definition to utilize all its capabilities.

I recently purchased a Spies NicePrint interface card because of the extra fonts available when I use that card, so I attempted to set up a custom printer definition to let AppleWorks use the capacity of the card.

My first problem was entering the interface initialization sequence into the custom printer definition. The NicePrint requires a "^" (a "caret") in the printer initialization string (@^@H), but AppleWorks uses the caret to end the initialization code sequence. Every time I entered the caret, AppleWorks kicked me out of that screen and would not let me enter the remaining codes.

I was able to circumvent this problem by using a "disk zap" utility to locate and change the characters in the sequence to include the necessary caret. When specifying the interface codes in AppleWorks, I inserted the string @?@H and then used Copy II+'s sector editor utility to replace that sequence with the correct @^@H codes.

Unfortunately, I now needed two custom printers, one to take advantage of the features of the NicePrint and the other to use the normal dot matrix features of my Gemini. Since I couldn't define two custom printers in AppleWorks, I needed two AppleWorks disks; one set up for the special features available from the NicePrint card and a second configured for the normal dot matrix features of my Gemini.

While this arrangement was usable, it offended my sense of elegance and economy. I wanted to set up two or more custom printers on the same disk.

Help from David Walker

I received a lot of help from an article that David W. Walker (Compuserve number 71076,411) placed on the DL-4 BBS in the MAUG area in Compuserve. Mr. Walker analyzed the file SEG.PR on the AppleWorks Program Disk and identified the pointers to the beginning sequence of the pre-defined printer codes. He located the pointers as beginning at byte $03 for version 1.0 and $3A6 for version 1.2 of AppleWorks. Those are the addresses for the beginning of the table in each version.

The table of pointers consists of 2-byte offsets for the 11 printer blocks allocated in version 1.0 and the 12 blocks allocated in version 1.2. The pointers are stored in the usual low-byte first order, so BE 03 means the corresponding definition begins at the relative byte $3BE. *[Ed: The SEG.PR file is unchanged between versions 1.2, 1.3 and 2.0. So Dr. Shultz's comments for version 1.2 apply to all three versions of AppleWorks.]*

The table of pointer addresses

Here's the table as it appears in AppleWorks version 1.2 with the appropriate printer related to each definition:

BE	03	Apple Dot Matrix
BE	03	ImageWriter *
69	05	Apple Daisy Wheel
A5	06	Silentype **
22	09	Epson MX series
C2	09	Epson MX/Graftrax
7A	0A	Epson RX series
45	08	Epson FX series
2D	07	Qume Sprint 5
69	05	Qume Sprint 11
BA	04	Apple Scribe
42	0B	User-Defined custom printer

** The printer codes for the Dot Matrix and ImageWriter printers refer to the same address.*

*** The Silentype area is empty; AppleWorks stores no codes for this printer.*

Schematically, this is what I did

Using this information, I used a Disk Zap program to enter the data for one of my custom printers beginning at one of the appropriate blocks. I decided this was too much like work, so I entered the Spies Niceprint definitions into the custom printer area and loaded that version of SEG.PR into memory. Then I BSAVEd the segment containing the custom definition, BLOADed that segment to the desired block (in memory), then BSAVEd the customized SEG.PR back onto my AppleWorks disk.

I chose the block for the Epson MX/Graftrax+ as the address for a copy of my custom printer definitions. I selected this area after some experimentation; I found that some of the pre-defined blocks would have odd effects on the printed text.

All that remained was to boot AppleWorks, select the "Add a Printer" option from the Printer Menu, choose "Epson MX/Graftrax+" from the printer menu, name it

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"Spies", and check the desired Carriage Return, Top of Form, Platen Width and Carriage Width settings.

Since I had to change the Printer Interface Initialization to a string that contained a caret, I entered the string "@?@H Escape" to the Printer Interface card setting. Then I booted Copy II+ and "zapped" the necessary caret into the appropriate sector to get the @^@H sequence.

Now I had two custom printers...the Spies and the Gemini.

The above sequence should work with any printer you desire. The following is the sequence of commands I entered from the keyboard with a **copy** of the AppleWorks Program disk in the drive and BASIC.SYSTEM loaded into the Apple:

BLOAD SEG.PR, TSYS, A$1000
BSAVE SPIES, A$1B42, E$1C6F (Note: Be sure you have space to save this on your disk or save it onto another ProDOS formatted disk.)
BLOAD SPIES, A$19C2
BSAVE SEG.PR, TSYS, A$1000, E$1E56 (Note: Be sure to save this back to the AppleWorks disk.)

Now you're all set, except to add the Epson/Graftrax+ to your printer list, name it what you will, and define a second custom printer under the custom printer area. Of course, you will want to pre-define your first printer before doing this, and the segment to be BSAVEd and BLOADed (moved) may be named anything you like. You may also want to experiment with BLOADing to some of the other blocks within SEG.PR if the custom printer doesn't print the way you expected. However, be sure not to use the relative address $A7A (Epson RX series); the moved code will overwrite the relative address $B42 reserved for the "next" custom printer.

Defining a "disk printer"

One final tip: If you need to save an AppleWorks file as a formatted text file (e.g., as a spreadsheet to print with Sideways or a word processor file to transmit as a formatted document with a modem), you need to define a printer to "print" your file to the disk. As noted above, the block of code in SEG.PR for the Silentype printer is empty. I defined the Silentype as my disk printer as follows:

1. Boot AppleWorks and go to the Other Activities Menu.
2. Select "Information about your printer".
3. Choose "Add a printer" and pick the Silentype.
4. Choose "Disk" in response to the "How is this printer accessed?" question and name the printer "Disk".
5. Set the platen width as desired and the interface initialization string to "None".

A file "printed" on the disk printer will be saved as a formatted text file.

[Garth Shultz is a physician in Kalamazoo, Michigan. He is associated with KACUS, the Kalamazoo Apple Computer Users Group.]

DATA BASE TIPS

HOW TO PRINT 3-ACROSS MAILING LABELS

by Robert J. Netro

AppleWorks makes it easy for you to print on one-across labels from the data base module. For some reason, users continue to request help printing on three-across labels. For example, the November, 1986 issue of the ***Forum*** contained an editorial note asking for information on printing two and three-across labels. This question also appeared in several other newsletters and magazines. It confounds me why so many users want this capability; a check of the comparative costs of single and three-column labels revealed a savings of only 33 cents per 5000 labels for the three-across format.

However, since many users want the capacity to print on 3-across labels, I will describe two methods you can use. One is for return address labels. The other is for labels containing names and addresses from an existing data base. You will be able to generalize these examples to other applications.

Return address labels

This technique lets you print identical content on 3-across labels. You can use this technique to generate return address labels, labels that go inside books or tapes in your collections, or for other applications where you need dozens of identical labels.

For example, let's say you want to print approximately one hundred, four-line return address labels. The trick is to create a single record with spaces for three copies of your name and address. You then enter your name and address into all three areas, make copies of that record, and create a labels format report that prints those three labels across the page. More specific guidance follows:

1. Create a new data base file that has the following categories: "Line 1", "Line 2", "Line 3", "Line 4".

2. While still in the CHANGE NAME/CATEGORIES mode, enter those same category names two additional times. When you are done, you have defined a record that has twelve fields...three named Line 1, three named Line 2, and so forth.

3. Enter your name and address into the first set of categories. Then enter your name and address twice more. Your name and address now appear three times on the first record. When you are done, your screen should look like this:

LINE 1: James Jones
LINE 2: ABC Supply Company
LINE 3: 1234 Main Street
LINE 4: City, OH 44703

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LINE 2: ABC Supply Company
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LINE 4: City, OH 44703
LINE 1: James Jones
LINE 2: ABC Supply Company
LINE 3: 1234 Main Street
LINE 4: City, OH 44703

---

4. With the Multiple Record Layout screen displayed, use the Copy command (Apple-C) to make as many copies of this record as desired. If you want to print about 100 labels, make 32 additional copies of the record. (Remember that each record will print three labels.)

5. Develop a Labels Style Report. Your report should have three adjacent sets of similar information. Make certain your spacing between labels matches the size and spacing of the sheets of labels you purchased. An example report format looks like this:

LINE 1	LINE 1	LINE 1
LINE 2	LINE 2	LINE 2
LINE 3	LINE 3	LINE 3
LINE 4	LINE 4	LINE 4

————————Each record will print 6 lines————————

If you allow for a left margin, take that into account when spacing columns two and three. Use Apple-O to set the five bottom options as:

Send Special Codes to printer: No
Print a Dash when an entry is blank: No
Print a Report Header at top of each page: No
Omit line when all entries on line are blank: Yes
Keep number of lines the Same within each record: Yes.

The resulting output would be:

James Jones	James Jones	James Jones
ABC Supply Co.	ABC Supply Co.	ABC Supply Co.
1234 Main St	1234 Main St	1234 Main St
City, OH 44703	City, OH 44703	City, OH 44703

Once you've generated three-across labels, it is easy to modify your file to print on one-across or two-across labels. You now have a flexible file with capabilities for 1, 2, or 3-column return address labels usable for personal, family, social organizations, and business purposes. All you need do is add appropriate data into the file.

VARIABLE NAME AND ADDRESS LABELS

Unfortunately, it's not as easy to print two-across or three-across labels from a data base file. The approach we will use involves going from a data base report to a word processor file, back to a new one-category data base, and finally to a spreadsheet. Although it sounds complicated, the process takes a few minutes and is worth the effort if you need to print multiple column labels. You can then write a macro to automate the process.

In the step-by-step procedure that follows, I will assume your initial data base is in a file called DIR (for Directory) on a disk/volume called MISC. In addition, I will assume that you will print 6 lines per inch on labels that are 1 inch long.

1. Use the Apple-A command to arrange the DIR file into the order you want the labels to be printed. This is the only opportunity you have to rearrange your labels.

2. Use the Apple-N command to change the name of the file to DIR.2 and change any two category names you will not use in the mailing label report to "DUMMY1" and "DUMMY2". If you do not have extra categories, use the Apple-I command to insert two dummy categories. Save this file with the Apple-S command (changing the name keeps the original file intact).

[Ed: Bob plans to print four lines of data on a 1-inch label. Since a 1-inch label can accommodate 6 lines, he needs two dummy categories to fill the two blank lines. To determine the number of dummy categories required, decide how many lines you will print on each label, subtract the result from the number of lines that can fit on a label, and create enough dummy categories to make up the difference.]

3. Use Apple-L to move both dummy categories to the left on your multiple record screen.

4. With your cursor on the first record, shift to the single record screen with Apple-Z. Clear the entry in DUMMY1 with Apple-Y or Control-Y. Enter a series of "=======" (at least 30 of them) to fill this entry. Repeat the process for DUMMY2. Return to the multiple record screen and with your cursor on the second record in the DUMMY1 category, use the Apple-ditto mark command to copy these dummy entries onto each record in the file. Repeat these steps for DUMMY2. You cannot leave lines blank in this procedure, so you will print labels in this format:

==========
James Jones
ABC Supply Co.
1234 Main St
City, OH 44703
==========

You must enter something into all DUMMY categories; **you cannot leave a blank entry in any category.**

5. Create a mailing labels report. Each label must include enough lines to fill the label. Therefore, if you are using one-inch labels and printing six lines per inch, you need six lines in your label format. Use the dummy categories to fill in where necessary. An example follows:

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(*DATA BASE TIPS,* Continued from Page 7)

DUMMY1
FNAME <LNAME
COMPANY
STREET
CITY <STATE <ZIP
DUMMY2
————Each record will print 6 lines————

6. Go to the Options Menu (Apple-O) and set the following options for this report:

Send Special Codes to printer: No
Print a Dash when an entry is blank: Yes
Print a Report Header at top of each page: No
Omit line when all entries on line are blank: No
Keep number of lines the same within each record: Yes

7. Print your report "To the clipboard (for the Word Processor)".

8. Create a new word processor file called "WP".

9. Copy "From clipboard". (If you don't have a memory expansion card with software to expand the size of the clipboard, you will probably exceed the clipboard limits. If that happens, repeat steps 6 and 8 as necessary.)

10. Print WP to "A text (ASCII) file on disk". Use /MISC/DB as the pathname *[Ed: If you are uncomfortable with the concept of pathnames, see the article entitled "ProDOS Pathnames" in the November issue of the* ***Forum****.]*

11. Go to the Add Files Menu and indicate you want to "Create a new file for the data base." Specify that this will be "From a text (ASCII) file" and that it will have one category. The originating pathname is /MISC/DB. Call this file "DB2".

12. In the data base module and working with the file called DB2, create a label format report. Accept the default layout for that report, but use the PH command from the Options Menu to remove the header.

13. Print this file to "A DIF (TM) file on disk" (TM stands for Trademark). Call the report "SS" and specify /MISC/SS as the pathname.

14. Return to the Add Files Menu and create a new spreadsheet file called "MCML" (for Multiple Column Mailing Labels) indicating that it is "From a DIF (TM) file". The source pathname is /MISC/SS.

15. Now you have to adjust the width of the columns so your labels print properly. For this example, I will assume you are using 3-across labels that are 3.5" in width and 15/16 of an inch from top to bottom (plus a 1/16 inch space between labels, making a distance of one inch from the top of one label to the top of the following label). In addition, I will assume you are printing at 12 characters per inch and at 6 lines per inch.

Widen columns A, B, and C to 44 spaces each. Of course in actual practice you will have to adjust this spacing to the size needed for your own labels.

16. Use the Copy command (Apple-C) to copy the middle third of the rows in your spreadsheet into column B. Copy the bottom third of the spreadsheet into column C.

17. Delete the rows in Column A which were copied into columns B or C.

18. If you want to improve the appearance of your labels, use the Apple-V command to center all labels. (The sequence of commands is Apple-V, L, C.)

19. Use the Apple-O command and specify CI=12, PW=11 (or the effective width of your labels sheet), remove the header with the PH command.

20. Save your work with Apple-S.

21. With your labels in the printer, test the starting alignment by printing some sample labels. If the alignment is satisfactory, proceed with complete printing. An example of one label is:

==========

James Jones
1234 Main St
Anywhere, OH 44703

==========

One final suggestion: Before ordering multiple column labels, make certain your printer will accommodate their extra width. If it doesn't, stay with one or two-across labels.

[Robert Netro is President of MIH Associates in Canton, Ohio. He is a frequent contributor to "AppleWorks: Exclusive Reference" and "IAC Express". Bob's primary interests are system design, operational templates and organizational efficiency.]

NEXT MONTH'S AppleWorks Forum

- Δ More about adding three custom printers.
- Δ Phone numbers of **NAUG** members who will help other members.
- Δ How to create your own desk accessory program.
- Δ Review of RamUp: A RamWorks accessory.
- Δ How to improve your spreadsheets.
- Δ Tricks with mailmerge in version 2.0.
- Δ Review of Point to Point.
- Δ Keep your tax records with the AppleWorks data base.
- Δ Novice notes: Getting repeated data into the data base.

...and lots more.

DATA BASE OR SPREADSHEET: WHICH ONE SHOULD YOU USE?

by Warren Williams

Distinctions between the data base and spreadsheet modules are clear — or are they?

When you first learn AppleWorks, there appear to be clear distinctions between the potential uses for the data base and spreadsheet modules. Beginners typically use the data base module to maintain lists and the spreadsheet to work with numbers. But, as you use these modules, you discover there is overlap between the AppleWorks data base and spreadsheet. The distinctions between these modules becomes blurred. This is particularly true when we learn that the data base module can handle some calculations and the spreadsheet module is ideal for some lists.

Those of us who use both modules, develop a set of internalized decision rules to help us decide whether to use the data base or spreadsheet for a particular application. Let's put our rules to the test.

TAKE THIS QUIZ

Here are four applications. Would you favor using the AppleWorks data base or spreadsheet module for each example?

1. Maintaining your tax records.
2. Keeping a teacher's gradebook.
3. Keeping checkbook records.
4. Developing a budget for a business or department.

In this article, I will outline some of the decision rules I use to help me decide between the spreadsheet and data base modules. Then I will apply those rules to the four examples described above.

CASES AND VARIABLES

Before starting, I must first define two terms: "case" and "variable".

A "case" is a person or thing that becomes the basis for a record in a data base or a row in a spreadsheet. For example, if you use AppleWorks to maintain a list of books in your professional library, each book is a "case". If you maintain your tax records in AppleWorks, each expenditure and each income item is a "case". If you keep payroll records for your employees, each employee is a "case". And if you keep a gradebook, each student is a "case".

A "variable" is something that varies for each case. For example, if you use AppleWorks to maintain a list of books in your professional library, each book is a case. The name of each book is a variable, the name of each author is another variable, and the name of each publisher is a third variable.

Similarly, if you maintain your tax records in AppleWorks, each tax related expenditure is a case. The date of each expenditure is one variable, the method of payment (check, cash, or credit card) is a second variable, the amount of the expenditure is a third variable, and the tax category is a fourth variable. You typically have many variables for each case. A variable is usually the basis for a category in a data base or a column in a spreadsheet.

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(Continues on Page 10)

(Continued from Page 9)

THE DECISION RULES

Here are some questions that should help you select between the AppleWorks spreadsheet and data base modules:

1. Does your application require arithmetic operations beyond addition, subtraction, multiplication or division?

If your application requires complex arithmetic, you should use the spreadsheet module. If your application requires no more than addition, subtraction, multiplication or division you can use either the data base or spreadsheet module.

Don't eliminate the data base alternative simply because your application requires arithmetic operations; the data base module can easily handle basic arithmetic operations.

Figure 1: SUMMARY OF DECISION RULES

Characteristic	Favors Spreadsheet	Favors Data Base
Requires mathematics beyond + - * /	+	
Many cases and/or variables		+
Calculated values within each case	+	
Unknown number of cases and/or variables		+
Want separate reports for different groups		+
Want lots of numeric variables summarized on a single page	+	
Want to generate different format reports		+

2. Do you have many cases and/or variables?

The more data you have, the more you should favor using the data base module. The data base module facilitates the data entry process by giving you a data entry screen. By comparison, when using the spreadsheet module, you must find the next place in which you should enter data. In addition, the data base module can show you all the data for a single case on one screen. In the spreadsheet, those data are spread out across a row and are typically displayed with the data for other cases.

3. Do you need calculated values within each case?

Both the spreadsheet and data base modules have the ability to generate calculated values based on the entries in other variables. For example, both modules can calculate the total value of an inventory by multiplying the number of items by the price of each item to compute the total value of those items. However, the data base module cannot easily insert those calculated fields into each record; the calculations are generated during the reporting process. The spreadsheet module can handle an unlimited number of additional variables in each record based on the values of two or more other variables.

If you want to insert a calculated variable into each record, the spreadsheet has the advantage.

4. Do you know the final number of columns and rows?

It's easier to develop a spreadsheet if you know the total number of cases (rows) and variables (columns) you will need. While you can insert rows or columns into a spreadsheet later, you often have to insert formulas into the new cells and make other adjustments to your spreadsheet when you make changes. If you know the total number of rows and columns in advance, you can prepare a template that includes the formulas required in your spreadsheet.

If you cannot predict the total number of rows or columns you will need, your application might favor using the data base module.

5. Do you want to generate reports listing the results for different groups of cases separately?

While it's possible to separate groups using the Arrange command in the spreadsheet module, it's easier to select groups using the data base module. If you want to generate a single report summarizing the performance of all cases on every variable, you can use either the data base

or spreadsheet module. However, if you want to generate reports for selected cases or variables, you should favor the data base module.

6. Do you want numeric data for many variables summarized on a single page?

While you can generate reports including many numeric variables in the data base module, the ability to generate a single comprehensive table is a strength of the AppleWorks spreadsheet. This is particularly true if you use one of the programs that allow you to print your spreadsheet sideways on a dot matrix printer. So, if you want to print lots of numeric data for a few cases, you should favor the spreadsheet module.

7. Do you have to generate different format reports?

The reporting component of the AppleWorks data base module has a level of flexibility that is not available in the spreadsheet module. With the data base, you can easily select different cases to print or different variables to include in your reports. If you require reporting flexibility, you should favor the data base module.

The table in Figure 1 summarizes these decision guidelines.

ANSWERS TO THE QUIZ QUESTIONS

So here are my proposed answers to the quiz at the beginning of this article:

1. Which module should you use to maintain your tax records?

Maintaining tax records does not require arithmetic operations beyond addition, requires you to enter data for many cases but the number of cases is unknown, and benefits from the selecting capability and report flexibility of the data base module. I would recommend using the data base module with each tax transaction treated as a case.

2. Which module should you use to keep a gradebook?

Here the answer is not as clear. If you have a fixed number of tests and projects and relatively little mobility in your classes, the spreadsheet is the clear choice. However, if you don't know how many grades you will accumulate for each student, if you assign lots of graded assignments, if you can assign grades on the basis of total points and not average points and if you have a lot of student mobility in your classes, you should consider the data base module.

3. Which module should you use to keep checkbook records?

This application is similar to the tax records example described in question one. Maintaining checkbook records requires only addition and subtraction, requires you to enter data for many cases but the number of cases is unknown, and benefits from the selecting capability and report flexibility of the data base module. I would recommend using the data base module with each check transaction and deposit treated as a record. [Ed: *We will publish an article on how to set up an AppleWorks data base to maintain your checkbook or tax records in a future issue of the* ***AppleWorks Forum***.]

4. Which module should you use to help you develop a budget for a business or department?

While developing budgets only requires addition and subtraction, (a) there are generally not many cases or variables in a budget, (b) you know the final number of cases and variables, (c) you want to print your results on a single page, and (d) you generally do not need much reporting flexibility. Therefore, I would recommend using the spreadsheet module to develop a budget.

While you can achieve many of the same ends with either the spreadsheet or data base module, selecting the more appropriate module gives you the flexibility and power you need for a particular application. It is an important choice that should be considered carefully before you proceed.

[*Dr. Warren Williams teaches courses in the Educational Technology program at Eastern Michigan University. He is a technical advisor to* **NAUG,** *a frequent contributor to the* ***AppleWorks Forum***, *and also conducts AppleWorks seminars throughout the country.*]

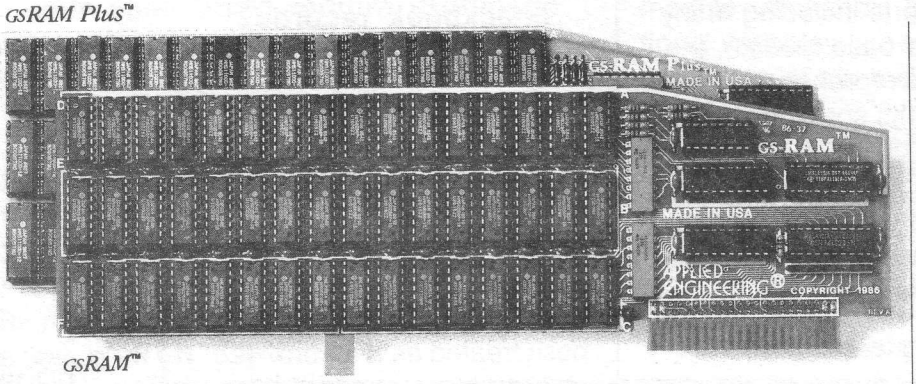
New Format

On the last few pages we experimented with a "magazine-like" format for the newsletter. Let us know if you prefer this new, more open format. Your feedback is important.

Insist on GSRAM™ When You Buy Your IIGS™

Expand the IIGS RAM and ROM with the GSRAM or GSRAM Plus with ROM Pak. Available now with 256K to 8 MEG!

GSRAM Plus™



GSRAM™

Remember the 16K cards for the II+ and the 64K cards for the IIe? At the time, that much memory seemed like a lot. But when the owners of these memory cards came to us for more memory, many had to throw away their smaller Apple memory cards or try to sell them. Most of our customers told us that had they known about Applied Engineering's larger memory cards when they bought their Apple, they would have purchased them at the same time.

GSRAM and GSRAM Plus are available now, allowing up to 8 MEG of memory expansion. That's 8 times the memory capacity of Apple's card and just look at the benefits that only GSRAM and GSRAM Plus have over Apple's card:

- Lower cost
- Has 6 RAM banks (Apple's card has 4)
- Has memory expansion port
- Has ROM expansion port
- No configuration blocks to set
- No soldered in RAM chips
- Expandable to 8 MEG
- Expands AppleWorks internal limits
- Built-in Hi-Res self-diagnostic software
- 5 year hassle free warranty (Apple has a 90 day warranty)
- Made in USA

GSRAM for More AppleWorks Power

Only GSRAM and GSRAM Plus eliminates AppleWorks internal memory limits, increasing the maximum number of records available from 6,000 to over 25,000 and only GS-RAM and GSRAM Plus increases the number of lines permitted in the word processing mode from 6,000 to over 15,000. And only GSRAM and GSRAM Plus offers a built-in printer buffer so you can continue using AppleWorks while your printer is printing. GS-RAM and GSRAM Plus even expand the number of lines in the clipboard from 255 to 2047 and will auto segment large files so they can be saved on two or more disks. You can even have Pinpoint or Macroworks and your favorite spelling checker in RAM for instant response. GSRAM and GSRAM Plus will even display the time and date right on the AppleWorks screen. Nothing comes close to enhancing AppleWorks so much.

Turn Your IIGS into a Giant

Simply plug GSRAM into the IIGS memory expansion slot and you've got up to *8 megabytes* of RAM at your fingertips—all of it instantly and automatically recognized by the IIGS. GSRAM is compatible with all IIGS software, including AppleWorks, as well as BASIC®, ProDos, DOS 3.3, PASCAL®, "C" and CP/M®.

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We offer GSRAM in two configurations so you can increase your memory 256K at a time (GSRAM) or a megabyte at a time (GS-RAM Plus). Both offer full compatibility, lower cost than other boards, and easy expandability. And both are extremely low in power consumption. A fully expanded GSRAM operates at only 375 ma, and GSRAM Plus at only 270 ma (even with 6 megabytes on board!)

GSRAM—for Normal Memory Requirements

GSRAM is available with 256K, 512K, 1 MEG or 1.5 MEG of memory already on board. If you don't need the full 1.5 MEG now, you can choose a GSRAM with less memory and expand it up to 1.5 MEG in the future—or upgrade to GSRAM Plus for a small charge.

"I recommend Applied Engineering products wholeheartedly."

Steve Wozniak, the creator of Apple Computer

With an optional piggyback card, you can expand GSRAM even higher than 1.5 MEG! (Other cards are only expandable to 1 MEG.)

GSRAM Plus—for Growing by Leaps and Bounds

GSRAM Plus is the first Apple memory card to use 1 MEG RAM chips on the main board. It's available with 1 to 6 MEG on board. If you don't need the whole 6 MEG now, you can buy a GSRAM Plus with less memory and easily expand it in the future.

GSRAM Plus can be expanded up to 8 MEG with an optional piggyback card.

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Both GSRAM and GSRAM Plus use standard RAM chips that are readily available and just plug right in. So unlike other cards, you'll find expanding your GSRAM or GSRAM Plus easy, convenient and very economical. And with our optional ROM expansion module you can even increase the IIGS's ROM space and all in just one slot.

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Applied Engineering is the largest supplier of Apple peripherals in the world. We *invented* the first large RAM cards for the Apple. With a 5-year "no-hassle" warranty and outstanding technical support, you can be sure GSRAM and GSRAM Plus will deliver the performance you're looking for—or return them within 15 days for a full refund.

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GSRAM with 1.5 MEG	**$379**
GSRAM with 2-8 MEG	**CALL**
GSRAM Plus with 1-8 MEG	**CALL**

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SPREADSHEET TIPS

TRANSFERRING DATA BETWEEN SPREADSHEETS: PART 2

by Phineas R. Fiske

[Ed: This is the second of two articles by Phineas Fiske on transfering data between AppleWorks spreadsheets. Mr. Fiske developed these data "porting" procedures for 1040Works, a series of federal income tax templates.]

Last month I described how to use @IF statements to make your older AppleWorks version do one of the tricks that Version 2.0 does — transfer data from one spreadsheet to another without transferring unwanted cell references and functions. However, as I noted last month, once you move data to its new location in a new spreadsheet, you may find that the new spreadsheet isn't eager to acknowledge the value of the newcomer.

The reason is simple: When you insert a row in a spreadsheet, it pushes everything down a row. The program adjusts all the formulas that refer to those rows so that the references remain accurate. That makes it difficult for the new row to be accepted.

What's the problem?

First, you have to understand the problem. Say you moved a row of data from Spreadsheet A into Spreadsheet B. You planned it so the imported data will appear in row 40 of Spreadsheet B. Then you want to distribute those data to other locations in the spreadsheet. You could type the values that appear in Row 40 into the other locations where the data are needed. But that's an unnecessary manual procedure. It is better to make the spreadsheet install the values automatically.

One seemingly logical solution is to write formulas so they refer to the cells in Row 40. For example, if you want to use a value from Cell D40 as part of a calculation in Cell G11, you would write a reference to Cell D40 as part of your formula in Cell D40. However, when you transfer the data into Spreadsheet B by inserting it at Row 40, you will be disappointed: The formula in G11 will be "adjusted" to refer to Cell D41, but Cell D41 (which used to be the vacant cell D40) is still empty.

AppleWorks version 2.0 takes care of this problem automatically. When you move a row from one spreadsheet into another, version 2.0 installs the data into the row above the location of the immigrant row. If you moved your values into Row 40, for example, the data would appear in Row 39. You would write your references and formulas in the host spreadsheet to pick up data from D39, not D40. But owners of older versions can duplicate version 2.0's ability to transfer data between spreadsheets. This technique uses the @SUM function.

What's the trick?

The @SUM function totals all values it finds in any of the cells within a range and ignores cells that are empty or contain labels. So, if you are looking for one particular value that appears in some location in a column, it doesn't matter where the value appears in as long as it's within the range of cells specified in the @SUM statement.

How does that apply here? Remember you are trying to capture a value that appears in Cell D40 and bring it up to Cell G11, but any reference you make to Cell D40 changes to D41 when you transfer data into Row 40.

Instead of writing an expression in G11 that refers to Cell D40, write one that sums the values in Column D, starting a row above Row 40 and ending a row below. (Make sure, of course, that the cells just above and below D40 are empty and will remain that way.)

The expression might be @SUM(D39...D41). Now, when you import a row of data into the spreadsheet, the expression in Cell G11 will be adjusted to read @SUM(D39...D42), but that's all right. Since cells D39, D41 and D42 are empty, the sum of cells D39 through D42 is equal to the value in D40.

If the @SUM statement is part of a complex formula, it may not pick up the value instantly the way a simple cell reference would. You will have to order recalculation (with the Apple-K command) to install the data in its relevant locations.

You must be careful if you use this transfer trick more than once in a single spreadsheet. Say, for example, you develop a new set of numbers in another spreadsheet and want to try them in place of the ones you imported previously. If you try that, you will find the second set of imported data will push the first set down into Row 41 and you will end up with two rows of values, one above the other. The @SUM formula will pick up both sets of values and total them, which is not what you wanted. What's the remedy? Delete the first row of transferred data from Row 40 before you move in the new set.

I used this technique to transfer data between the two major spreadsheet modules in my 1040Works tax preparation templates and it worked. When this trick is combined with the technique described last month for disabling formulas when moving one row of a spreadsheet to a new location, it is possible to move data between spreadsheets as though you had AppleWorks version 2.0 or some other more elaborate spreadsheet software.

[Phineas R. Fiske is President of Personal Financial Services, a certified financial planner, and a journalist who writes about economic issues. Personal Financial Services publishes 1040Works, spreadsheet templates that prepare your federal income tax forms. 1040Works, for 128K Apples costs $23.95 and 1040Works-X (for Apples with expanded memory cards) costs $26.95 from Personal Financial Services, Box 1401, Melville, New York 11747. Telephone (516) 261-8652.]

WORD PROCESSOR TIPS

WHAT YOU SEE IS NOT WHAT YOU GET

by Cathleen Merritt

When I first started using the AppleWorks word processor, I was confused by the format of documents on the screen. The left margin was at the left edge of the screen and the right margin was about two inches from the right edge. When I gave AppleWorks the command to "Center", it centered my entries over the text in the document but not in the center of the screen. Yet when I printed, everything looked correct on the page. This was my initial discovery that AppleWorks is NOT a "What You See Is What You Get" (WYSIWYG—pronounced "WIZ-ee-wig") word processor.

As I played with the margin settings, I began to understand the differences between AppleWorks' screen display and printed output from the program. Once I understood how AppleWorks handles its screen and print routines, it became easier to predict the format of the printout and overcome the non-WYSIWYG limitation.

WYSIWYG word processors

At first glance, AppleWorks appears to be a WYSIWYG word processor. Words "wrap" on the screen, centered text appears almost centered on the screen, and most formatting commands are hidden from view (unless you call them onto your display with an Apple-Z).

But there are some important differences between the AppleWorks screen and print routines. Most importantly:

1. AppleWorks cannot display more than 77 characters on a line on the screen, although it can print more than 77 characters on a printed line.

2. AppleWorks never splits a word between two lines on your screen or on your printer.

This combination can lead to significant differences between the screen display and printed output; particularly when you change the AppleWorks default margin and print size settings.

The AppleWorks defaults set up the program to print at 10 characters per inch (cpi) on an 8-inch wide platen with one inch margins. That results in a 6-inch wide line of print (8 inches less 2 inches for the margins) at 10 cpi; a total of 60 characters per line. Since AppleWorks can display up to 77 characters per line, the "wrap" of words on the screen matches the "wrap" of words on the printed output...as long as you don't change the default settings.

However, when you issue the command to print at 12 cpi and set the margins narrower (e.g., to 1/2 inch left and right margins) you will print a 7-inch line at 12 cpi, or a total of 84 characters per line. AppleWorks will print those 84 characters on each line with no difficulty, but it cannot display more than 77 characters on each line on the screen. So, AppleWorks "wraps" words on the screen when 77 characters appear on a line. As a result, your screen display does not match your printed output.

What difference does it make?

Most of the time it makes little difference whether or not the printed output matches the screen. But let's say you want your return address on a letter to appear as follows:

100 East 81st Street
Brooklyn, New York 11210

April 1, 1987

If you use the TAB key to tab to the center of your screen, the display looks correct. But when you print, you will find your address is formatted to the left or right of center on the document, depending on the number of characters you print on each line.

This is easy to understand when you remember that the center of the screen is the center of a 77 column display; i.e., the center of the screen is the thirty-third column. If you are printing at 12 cpi with half inch margins, each printed line will contain 84 characters. To get your address to start at the center of an 84 character line, you must tab to the forty-second column. That will not look correct on the screen; the address will be to the right of center and your entry might "wrap" because there is not enough room on each 77 character line on the screen. However, your address will print at the center of the page and will not "wrap" on the printed page.

Here's another example. Imagine that you want to print the date so it is right justified; i.e., so the "7" in 1987 is at the right margin. Remember that your printed line is 84 characters long. Count the number of characters in the date (April 1, 1987 contains 13 characters counting spaces and the comma), add one to it for a total of 14 characters, and subtract that total from the line length...84 characters. That means you must start the date in the seventieth column. Once again, your date will "wrap" on the screen as you enter the 78th character. However, it will appear on a single line when you print your document.

Other non-WYSIWYG problems

There are at least two other times when the lack of correspondence between the screen and printed output is a problem.

One is when you are trying to set up tables for your document. You want the table to be centered on the page, but you can't use the centering command because each line in the table is a different length (if every line in the table is the

same length, use the Center command...it won't look centered on your screen, but it will be centered when you print your output). One way to get around this problem is to enter your table without thinking about its final placement on the printed page. Print your document and estimate the correct size of the left margin to get the table centered. Then try a new left margin setting for the table and print the page again. It rarely takes more than two or three tries to get the format that you want.

Another time the lack of correspondence between the screen and printer is disconcerting is when you command an Apple-K to look at the page breaks. If you reset the margins and cpi so you print more than 77 characters per line, you will find that the page breaks sometimes appear in the middle of a line on the screen. Don't change anything. When you print the document, the pages will end correctly, AppleWorks can't show you that on a 77 column screen.

The non-WYSIWYG nature of the AppleWorks word processor can be disconcerting. But like many things with AppleWorks, once you know why the program does what it does, it's relatively easy to work around its shortcomings.

INTERFACE CARD SETTINGS

by Hal Heidtman

Are you getting unusual characters (like "8ØN") each time you print a new document? Do your margins not line up properly when you print? The problem might be your "interface card settings" in AppleWorks.

Here is a collection of interface card settings from my file.

Interface Card	*Setting*
Apple Parallel Card	Control-I 8ØN
Apple Super Serial Card	Control-I 8ØN
Apple Centronix Parallel	Control-I 255N
Grappler Plus	Control-I ØN
Pkaso	Control-I ØN
Tymac	Control-I 99N
Microtek RV-611C	Control-I 255N
Practical Peripherals	Control-I N
MPC AP Graph & Graphwriter	Control-I 255N

See the Printer Primer article entitled "Correcting Printer Interface Card Problems and Eliminating Unwanted Characters on Printouts" in the September, 1986 issue of the Forum for more information about how to detect interface card setting problems and how to change card settings.

[Hal Heidtman is an Associate Principal at Anthony Wayne High School in Whitehouse, Ohio. He is a technical advisor to **NAUG**, *a member of the* **NAUG** *Editorial Review Board, and conducts AppleWorks seminars for* **NAUG** *throughout the country.]*

QUICK TIPS

SETTING UP NEW VERSIONS OF APPLEWORKS

by Garth Schultz, M.D.

Did you put version 2.0 of AppleWorks aside until you have the time necessary to configure the program for your printer? Well get it out...it only takes a couple of minutes to transfer your printer setup codes from version 1.2 or 1.3 of AppleWorks to version 2.0 of the program. The key is to realize that all your printer setup codes are stored in a file called SEG.PR that is on the AppleWorks Program Disk and that SEG.PR is identical in all three versions of the program. If you replace your unconfigured SEG.PR file in version 2.0 with the configured SEG.PR from your working copy of AppleWorks, you will have installed all your printer control codes onto the new copy of AppleWorks.

You can use any ProDOS file copy program to accomplish this transfer, including the file copy program on the Apple System Utilities disk or the file copy routine on Copy II+.

HAVE A BAD KEY?

by Jeff Enge

Ever have a letter stop working on your keyboard? That means a trip to the shop for most of us...and some time without our computer. But you can usually delay that trip until you finish typing with this trick:

Let's say the letter "Y" on the keyboard stops functioning in the middle of typing an important document. Put the cursor on any letter "Y" in your document (or in any other document you put on the screen) and use the Copy command (Apple-C) to copy the letter to the clipboard. Now, whenever you need the letter "Y", use the Copy command again to place a copy from the clipboard into your document.

Unfortunately, this technique will not work if you need the letter to invoke a command. For example, if the letter "P" stops functioning, you will have great difficulty printing your work.

UPDATE DEADLINE

APPLE DISCOUNT OFFER EXPIRES APRIL 30

The AppleWorks version 2.0 update offer expires **APRIL 30.** If you own an earlier version of AppleWorks and want to update to 2.0, get an update form from an Apple dealer. The update costs $50...until the April 30 deadline.

APPLEWORKS ADD-ONS

USING FONTWORKS TO PRODUCE A DOCUMENT

by Brian Theil

[Ed: This is the second of two articles about FontWorks. Last month, Brian Theil reviewed the program. This month he describes how to use FontWorks.]

FontWorks is an AppleWorks add-on that enhances your printout from a dot matrix printer. FontWorks reads specially created AppleWorks data files and allows you to incorporate up to four custom font styles into your document. For example, you can easily combine bold fonts for major headings, italics for special word or phrase highlighting, and a micro-small font for footnotes in a single document.

Using FontWorks

Your first step is to create a regular AppleWorks word processor file and save it to disk. Your work will be more efficient if you create the file with FontWorks in mind. That is, plan the structure and organization of your document in advance. Decide what headings, words and phrases should be emphasized through different font styles. In this way, FontWorks becomes an integral part of your document. It will, in fact, enhance the readability and impact of the final printout.

Additionally, keep in mind that FontWorks lets you use up to four different fonts. These fonts are turned on and off by embedding boldface, superscript and subscript commands via the AppleWorks Options Menu (Apple-O). Select a different type face enhancement and assign atype face to each set of formatting codes. For example, you might decide that an italic type face will be assigned to the boldface formatting code. As you type, embed a Boldface Begin command to initiate the italics font and a Boldface End command to return to the default font. The default font, as well as additional fonts, will be declared later, when you run FontWorks. Be sure to use all margin, indentation, centering and other formatting options that you want to include in your document; FontWorks accepts these AppleWorks formatting codes. Save your work onto an AppleWorks data disk.

Now you'll use FontWorks

Here are the steps necessary to use FontWorks:

1. Leave AppleWorks and boot the FontWorks program disk. If you have not configured FontWorks for your printer interface card and dot matrix printer, you should do that configuration now by selecting choice #3, "Other Activities" from the FontWorks Main Menu. The configuration process is menu-driven...you won't need guidance as you walk through the steps. When configuration is complete, return to the Main Menu.

2. Select #1 and add your AppleWorks document file to the FontWorks desktop just as you would in AppleWorks. Then return to the Main Menu by pressing the ESCAPE key.

3. Now you will select the fonts you want to assign to the four different formatting codes. Select #3, "Other Activities", from the Main Menu and choose "Select Fonts" from the Other Activities Menu. Then select choice #1, "Add Fonts".

4. FontWorks presents a list of the available fonts. Using the right arrow key, select from one to four fonts to use in the word processor file printout. Do not be concerned about the order in which you select the fonts. When you are done, FontWorks will again display the Fonts Menu. This time, select option #2, "See, Move, Remove Fonts". Now, you can arrange the fonts in the appropriate order.

Next to "Default", enter the font you wast to use for all unmarked text. Next to "Boldface", indicate the font you chose to be associated with the Boldface Begin and Boldface End commands in your file (in our example, we would choose an italics font for the boldface commands). Continue in a similar fashion for superscript and subscript titles. Then return to the Main Menu by pressing the ESCAPE key.

5. Select Option #2, "Print the Files on the Desktop", from the Main Menu. You will be shown the name of the file on the desktop. Issue an Apple-P command to print the file.

This procedure will produce a FontWorks printed document.

Other considerations

Remember that FontWorks does not mix its large and small fonts well; the spacing of the smaller fonts will not be correct if a large font is used anywhere in the document.

I also found that it is easier to do all my file formatting (e.g., top and bottom margins, right and left margins) while in AppleWorks and not through FontWorks' "Other Activities" menu.

FontWorks prints spreadsheet files in the same way as word processor files. It will also print them sideways. Data base files must first be "printed to the clipboard for the word processor" before you can embed the necessary commands to change fonts in the word processor file.

Once you become familiar with FontWorks' structure and limitations, you will be able to easily produce high quality, unique documents.

[Ed: FontWorks is available for $49.95 from The Software Touch, 9842 Hibert Street, Suite 192, San Diego, California 92131. The program is also available from mail order discount distributors. Version 2.05 is current.]

[Brian Theil, a graduate of the Educational Technology program at Eastern Michigan University, is a compensatory education teacher in the Taylor (MI) Public Schools.]

PRODOS 8

THE CURRENT VERSION OF PRODOS

USING YOUR //GS SYSTEM CLOCK WITH APPLEWORKS

by Douglas Hoffman,
Hal Heidtman, and Steve Bernbaum

You know about the latest version of AppleWorks, but do you know about VERSION 1.3 OF PRODOS 8, the current version of ProDOS?

Why should you consider changing the version of ProDOS on your AppleWorks Startip Disk? There are at least three reasons to make the change:

1. There are bugs in ProDOS versions 1.1.1 and 1.2 that can damage your data disks. *[Ed: This refers to version 1.2 of ProDOS, not version 1.2 of AppleWorks. You can tell which version of ProDOS you are using by watching the screen that appears when you boot up your Apple with the AppleWorks Startup Disk in the disk drive.]*

2. Under ProDOS 8, Apple //GS computers automatically time-stamp all AppleWorks files.

3. ProDOS 8 is free.

How to get a copy of ProDOS 8

ProDOS 8 was released when Apple introduced the Apple //GS in the Fall of 1986, and a copy of the program comes with each GS. (Unfortunately, it's not easy to find the correct file. Look for a file called "P8" on the System Disk that came with your computer.) ProDOS 8 is also on some AppleWorks software add-ons and other popular programs. For example, if you purchased a recent version of a Pinpoint product or Super MacroWorks, you have a copy of ProDOS 8. Finally, your Apple dealer should be willing to provide a copy of ProDOS 8 on a disk you supply. *[Ed: The version of ProDOS 8 on Super MacroWorks has enhancements by Randy Brant that let you select your next application from a menu when you quit AppleWorks. Use that version of ProDOS if at all possible.]*

Replacing ProDOS on your AppleWorks disk:

If you want to update AppleWorks so it uses ProDOS 8, you will have to replace the ProDOS file on your AppleWorks Startup Disk. You can copy ProDOS (just like any other file) using the System Utilities, Copy II+, or any other file copying utility. However, the ProDOS file on your Startup disk is locked. If you use the System Utilities, you must unlock the file before replacing it with the new version of ProDOS. If you use Copy II+, the program will ask you if you want to over-write the locked version of the file. *[Ed: I like Copy II+, from Central Point Software. The program is fast and easy to use. Copy II+ has a list price of $39.95 and is available from many discount vendors. Version 7.2 is current.]*

Here are step-by-step instructions to help you use Copy II+ to replace an earlier version of ProDOS with ProDOS 8:

1. Boot up with Copy II+.

2. Remove Copy II+ from the disk drive and put a disk containing ProDOS 8 in Drive 1 and a **copy** of your AppleWorks Startup Disk in Drive 2.

3. Press the RETURN key to activate the "Copy" command.

4. Select "FILES" from the Copy Menu and press RETURN.

5. Select "Slot 6, Drive 1" as the source and press RETURN.

6. Select "Slot 6, Drive 2" as the target and press RETURN twice.

7. If Copy II+ displays a disk map, press RETURN. If Copy II+ displays a list of files, select ProDOS and press RETURN.

If you are copying ProDOS 8 from the //GS System Disk, use the arrow keys to highlight the subdirectory "SYSTEM" and press RETURN. Then select the file named "P8" and press RETURN.

8. Press the letter "G" to tell Copy II+ to "GO".

9. If you have a //e, //c or Laser, you will get a warning message telling you that ProDOS is already on your destination disk. Press the letter "C" to tell Copy II+ to "Copy anyway", even though the original ProDOS file is on the disk. (//GS owners will not get this message.)

Extra steps for //GS owners:

If you have a //GS, you should now use the DELETE command on the Copy II+ menu to delete the file named ProDOS from the AppleWorks disk. Finally, use the RENAME command on the menu to rename the file from P8 to ProDOS.

Your original version of ProDOS is now replaced by the latest edition of the operating system. In the future, you will see the ProDOS 8 message when you boot up AppleWorks.

Notes for //GS owners:

Owners of //GS computers can use Copy II+ as described above or can use the System Utilities on the //GS System Disk. Here are the steps necessary to copy P8 (or any other file) using the //GS System Utilities:

1. Boot up with the //GS System Disk.

(***PRODOS 8,*** Continues on Page 18)

(***PRODOS 8,*** Continued from Page 17)

2. Select SYS.UTILS by double clicking on that file.

3. Select SYSUTIL.SYSTEM by double clicking on that file. This loads the //GS copy program.

4. Use the right arrow key to highlight COPY FILES and press RETURN.

5. Indicate that the pathname for the source disk is /SYSTEM.DISK/SYSTEM.

6. Indicate that the pathname for the destination disk is /APPLEWORKS.

7. Indicate you want to copy SOME of the files on the disk.

8. Insert a **copy** of your AppleWorks Startup Disk in your second drive.

9. Indicate you want to copy the file P8 by highlighting that file and pressing the space bar.

10. Press RETURN to begin copying.

11. When copying is complete, press RETURN to get to the Main Menu.

12. Delete the old ProDOS file from your copy of the AppleWorks Startup disk.

13. Rename the file P8 to ProDOS.

If you don't want to upgrade to ProDOS 8

There are good reasons to update your AppleWorks Start-up Disk so the original ProDOS is replaced with ProDOS 8. However, if you don't want to replace the copy of ProDOS on the disk, you should consider "patching" ProDOS because of the bug in versions 1.1.1 and 1.2 that can destroy data on the disk. *[Ed: A "patch" is a user-installed change to a program file.]*

You have to know what you're doing when you patch a program, so we won't show the step-by-step operations. If you are not comfortable patching a program, we suggest you install ProDOS 8 as described above.

What's the problem?

According to an article in "Open-Apple", the ProDOS floppy driver always assumes that the heads are left in "read" mode. ProDOS 1.1.1 and 1.2 contains soft switches to access various daisy chained drives. ProDOS occasionally accesses the drives in "write" instead of "read" mode, resulting in destroyed data tracks.

Here are patches that appeared in the November and January issues of "Open-Apple" to fix this problem. *[Ed: "Open-Apple is an excellent newsletter for Apple users. For subscription information, write to "Open-Apple", Box 7651, Overland Park, Kansas 66207.]*

ProDOS 1.1.1 patch

Here's the patch for ProDOS 1.1.1. Remember that ProDOS is locked and must be unlocked before you can change the program.

```
10 REM Stop ProDOS track trashing patches by Stephen
     Thomas, MacLagan Wright
20 REM & Associates, West Heidelberg, VIC, Australia

100 TEXT: HOME: D$=CHR$(4): E=0
110 VTAB 12: PRINT "NOW PATCHING PRODOS"
120 ONERR GOTO 500
130 IF PEEK (116) < 96 THEN E=1: GOTO 500: REM make
     sure there is room
140 PRINT D$;"UNLOCK PRODOS"
150 PRINT D$;"BLOAD PRODOS,A$2000,TSYS"

200 FOR ADR = 22211 TO 22220 STEP 3: REM change
     four STAs to LDAs
210 : IF PEEK (ADR) = 189 THEN E=2: GOTO 500
220 : IF PEEK (ADR) <> 157 THEN E=3: GOTO 500
230 : POKE ADR,189
240 NEXT

300 ADR=20484: V(0)=189: V(1)=142: V(2)=192: REM
     change NOPs to LDA $C0BA,X
310 FOR I = 0 TO 2
320 : IF PEEK (ADR+I) <> 234 THEN E=3: GOTO 500
330 : POKE ADR+I,VI)
340 NEXT

400 PRINT D$; "BSAVE PRODOS,A$2000,TSYS"
410 PRINT: PRINT "PATCHES COMPLETED"
420 END

500 PRINT CHR$(7);"ERROR!! NO PATCHES WERE
     MADE."
510 ONERR GOTO 530,540,550
520 PRINT "PRODOS FILE NOT FOUND":END
530 PRINT "NOT ENOUGH ROOM TO LOAD
     PRODOS.":END
540 PRINT "FILE HAS ALREADY BEEN PATCHED.": END
550 PRINT "THIS VERSION OF PRODOS NOT 1.1.1.": END
```

ProDOS 1.2 patch

The patch for ProDOS 1.2 is identical to the ProDOS 1.1.1 patch with the following three exceptions:

```
200 FOR ADR = 22723 TO 22732 STEP 3: REM change
     four STAs to LDAs

300 ADR=20996: V(0)=189: V(1)=142: V(2)=192: REM
     change NOPs to LDA $C0BA,X

550 PRINT "THIS VERSION OF PRODOS NOT 1.2": END
```

After you run the patch, you probably will want to lock ProDOS again once you are sure the patch works.

[Douglas Hoffman is Chairman of the Industrial Arts Department at Anthony Wayne High School in Whitehouse, Ohio. Hal Heidtman is at Associate Principal at that school and is a technical advisor to **NAUG**. *Steve Bernbaum provided information about the Open-Apple patches on the* **NAUG** *BBS.]*

BULLETIN BOARD NEWS

HOW TO CHECK FOR NEW MATERIAL ON THE NAUG BBS

by Richard Lewandowski
NAUG BBS Sysop
NAUG BBS Phone (313) 482-8090
(300 or 1200 baud)

The NAUG bulletin board (BBS) uses a popular Apple bulletin board program called GBBS. GBBS lets me assign the bulletins posted onto the board into different areas. This segmentation lets users examine selected boards without having to look at all the material posted on the system.

The **NAUG** BBS is divided into ten areas. Boards one through five contain general bulletins of interest to all users. Boards six through ten are specifically related to AppleWorks issues. Once you enter the bulletin board area (by typing a "B" at "Command?" prompt) you can enter a number to search a particular board. However, the GBBS software makes it easy for you to search for all new material posted on any board. Here's how:

1. Type "B" at the "Command?" prompt.

2. Type "G" (Global quick scan) at the next prompt.

As a new user, the "B" and "G" commands will let you scan all bulletins posted on the board. As a "return visitor" these commands will show you all bulletins posted since your last visit.

PROBLEMS WITH THE EQUIPMENT

While the **NAUG** BBS has proven itself fairly reliable, we have problems at the most inconvenient times. For example, during the weekend of March 21, the modem answered the phone but would not let callers log onto the board. Unfortunately, you were charged for the long distance call but couldn't get onto the system.

If you ever call the BBS and get an answer but can't get into the computer, don't call back until after 9AM the next school day. By that time, I'll be in the office and will get the problem fixed.

Even with these occasional shutdowns, the system has been busy. We've logged over 1800 calls in120 days. While four major crashes took the system down during this time, I estimate the board has been operational approximately 95% of the time. Still there is room for improvement.

Our apologies to callers with long distance charges.

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AppleWorks Forum

NAUG:
The National AppleWorks Users Group
Box 87453, Canton, Michigan 48187 U.S.A.

TIME VALUE MATERIAL

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Name: _____

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NAUG shares members' addresses with other users groups & selected vendors. If you do NOT want to receive mail from these agencies, please check here: ☐

Check all which apply:

___ Membership: $24 for 12 months of the ***AppleWorks Forum*** †

___ 1st Class Mail (to U.S., Canada, & Mexico): $10*

___ Surface Mail (outside U.S., Canada, & Mexico): $10*

___ Air Mail (outside U.S., Canada, & Mexico): $25*

Send this completed application AND your payment. Total Enclosed: $_____

† Membership in **NAUG** is free.
Your $24 is for a one-year subscription to the ***AppleWorks Forum.***

* In addition to **NAUG** membership

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